**IT Applications Unit 3, AOS 2, Organisations and Data Management**

**Structure and role of relational databases, p 97**

1. What is a flat file database?

A flat file database is a single table database, which consists of rows and columns.

1. Define each of the following terms:
   1. Primary key

A field that is attached to each record in the database. A primary key is what identifies each record in the database table.

* 1. Field

A field is a specific piece of data/information is placed. Example, a field containing the ‘age’ of the person.

* 1. Record

A record is a set of data about someone or something. Records are commonly organised into rows and columns.

* 1. Form

A form allows data to be inputted into a database.

* 1. Query

A query is used to filter a set of data. It is usually manipulated into usable information by putting it into a report.

* 1. Report

Formats the query data/information and allows you to add summary stats. Example, quantity.

* 1. Macros

A series of steps which can be made into one step by combining them together, when it is run it does these steps in order.

**Data types and formats**

1. List the following **data types** and characteristics of each with examples.
   1. **Text, (string) String data types include a series of symbols or values, such as a character string (a sequence of characters) or a binary string ( a sequence of binary values**

Text/Alphanumeric - Names, addresses, postcodes and telephone numbers

* 1. **Numeric**

Numbers Only- Any number that will be used in a calculation

* 1. **Currency**

Numbers, but UN dollar amounts, formatted with $ symbol and .00 as a default- Any number used to represent a financial value

* 1. **Date/time**

A variation in numbers formatted to represent a date and/or time – Any date; can be used in calculations.

* 1. **Boolean**

Represents one of two states – true or false - it also represents yes/no or on/off

* 1. **Object**

An image, audio, video or similar – media or other documents.

* 1. **Memo**

Like text, unlimited, not searchable – Any long selection of text.

1. **Data Formats:**

Elaborate on the following common data formats:

* 1. **Text**

Alphanumeric values, a field designed for to hold a name is regarded as text.

* 1. **fixed decimal places**

Certain numeric values, for example money, dollars and cents or when rounding occurs. Need to be formatted with a fixed number of decimal places. They will appear even for whole numbers, for example $200.00

* 1. **Date**

Can be displayed in different ways – 15/10/11 or 15-Oct-11 (this is preferred)

* 1. **Date/time**

12 or 24-hour clock. Variation of date in which minutes and seconds can be shown, if necessary. In a 12-hour clock time starts at 12:00 and goes to 11:59 a.m. or p.m. A 24-hour clock starts at 00:00 and goes to 23:59.

* 1. **Dollar, currency**

Uses the $ symbol; defaults to .00 after the value

* 1. **True/false, Boolean logic**

Can be displayed as text, true/false, yes/no, or as a box or check that requires ticking or marking, etc.